Directed®

SMART**START**

SMART START

3000-series
Remote Start System
with Keyless Entry

Owner's Guide

Congratulations

Congratulations on the purchase of your state-of-the-art remote start system with keyless entry. Reading this Owner's Guide prior to using your system will help maximize the use of your system and its many features. For more information please visit us online at:

www.directed.com/SmartStart

For any additional questions please contact your authorized Directed dealer or contact Directed at **1-800-753-0600.** Additional support is also available at:

http://support.directed.com

Important information

Government Regulations and Safety information

| ⚠ | Read the *Government Regulations* and *Warning! Safety First* sections of this manual prior to operating this system. |
| | **Warning!** Failure to heed this information can result in death, personal injury or property damage and may also result in the illegal use of the system beyond its intended purpose. |

Your warranty

Your system comes with a warranty. Please make sure you receive the warranty registration card and proof of purchase from your dealer indicating the product was installed by an authorized Directed dealer. Your product warranty must be validated within 10 days of purchase.

You can validate online at: www.prodregister.com/directed or complete and return the warranty registration card.

Optional Remote Kit

This system can be used with a companion remote control which offers you additional features. This remote kit is available through your authorized dealer or by visiting us at www.directedstore.com to order. The remote kit part number is 9474T.

If you choose to purchase this remote kit, the associated owner's guide for remote control features can be found online at www.directed.com/SmartStart.

Contents

Using Your System

Remote Start

This feature allows you to remotely start and run your vehicle for a programmable period of time. This makes it possible to warm up the engine, as well as adjust the interior temperature of the vehicle with the climate control system. If interior heating or cooling is desired, the climate controls must be preset, and the fan blower must be set to the desired level prior to remote starting the vehicle.

> **Important!** (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the key in the ignition.

For instructions on how to activate/deactive your remote start system, refer to the SmartStart User's guide.

When you are ready to drive the vehicle:

1. Insert the ignition key and turn it to the ON (not the START) position.
2. Press the brake pedal. The remote start system shuts down but the motor continues to run because the ignition has been turned on. The vehicle now operates as usual.

Note: If the brake pedal is pressed before the key is in the ON position, the engine will shut down.

While the vehicle is running during remote start operation, the system monitors the vehicle and automatically shuts down the engine if the system receives any of the following **Shut-down inputs**:

- The brake pedal is pressed.
- The hood is opened.
- The shutdown toggle switch is put into the OFF position
- The pre-programmed run time has elapsed.
- The procedure to activate remote start is repeated.

Valet Take-Over

The Valet Take-Over feature allows the vehicle to remain running after the key has been removed from the ignition. This feature is useful if you want to exit and lock the vehicle for short periods of time, but would like to leave the motor running and the climate controls on.

To perform Valet Take-Over:

1. Before turning off the engine, send Remote Start command from your SmartStart application.
2. Turn the ignition key to the OFF position (The engine will stay running).
3. The engine will run until the pre-programmed time elapses or a shut-down input is received. (See the previous section for a complete list of shut-down inputs.)

Note: This feature will not work if the brake pedal is being pressed.

Starter Anti-Grind Circuitry

Whenever the vehicle is remote started, advanced anti-grind circuitry prevents the starter from engaging, even if the key is turned to the start position. This prevents damage to the starter motor if the key is turned to the start position during remote start operation.

Note: Anti-grind circuitry only works when the remote start system is operating the motor and the optional relay is installed.

Disabling the Remote Start system

This feature allows your system's remote start unit to be temporarily disabled to prevent the vehicle from being remote started accidentally. This feature is useful if the vehicle is being serviced or stored in an enclosed area. To disable the remote start, move the shutdown toggle switch to the OFF position. The switch can be installed in a location of your choice. Check with your installer for recommended locations.

Location Of Shutdown Switch_____

Programming options

Programming options control your system's normal, operational set-up. Most options do not require additional parts, but some may require installation labor. See your authorized Directed dealer for more details.

The following is a list of the programmable options, with the factory settings in **bold**.

- **12**, 24, or 60 minute run time. Your system can be programmed to allow the vehicle to run for 12, 24, or 60 minutes when remote started. Can be set up to minute increments by your installer.

- Parking lights flashing or **constant**. Your system can be programmed to flash or turn on the parking lights constantly during the entire remote start operation.

Government Regulations

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesirable operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

This device complies with the Industry Canada Radio Standards Specification RSS 210. Its use is authorized only on a no-interference, no-protection basis; in other words, this device must not be used if it is determined that it causes harmful interference to services authorized by IC. In addition, the user of this device must accept any radio interference that may be received, even if this interference could affect the operation of the device.

Warning:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

Warning! Safety First

The following safety warnings must be observed at all times:
Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.

When properly installed, this system can start the vehicle via a command signal from the remote control/transmitter. Therefore, never operate the system in an enclosed area or partially enclosed area without ventilation (such as a garage). When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch. It is the user's sole responsibility to properly handle and keep out of reach from children all remote control/transmitters to assure that the system does not unintentionally remote start the vehicle. THE USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST AT ALL TIMES REMAIN CLOSED. These precautions are the sole responsibility of the user.

Use of this product in a manner contrary to its intended mode of operation may result in property damage, personal injury, or death. (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user must also have the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized Directed dealer in accordance with the Safety Check outlined in the product installation guide. If the vehicle starts in gear, cease remote start operation immediately and consult with the authorized Directed dealer to fix the problem.

After the remote start module has been installed, contact your authorized dealer to have him or her test the remote start module by performing the Safety Check outlined in the product installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or the installer must properly reinstall the remote start system so that the vehicle does not start in gear. All installations must be performed by an authorized Directed dealer.

OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. YOU MUST IMMEDIATELY CEASE THE USE OF THE UNIT AND SEEK THE ASSISTANCE OF AN AUTHORIZED DIRECTED DEALER TO REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DIRECTED WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

Caution

This product is designed for fuel injected, automatic transmission vehicles only. Use of this product in a standard transmission vehicle is dangerous and contrary the product's intended use.

Patent Information

This product is covered by one or more of the following U.S. patents:

303,223	345,711	4,383,242	5,103,221	5,534,845	5,907,195
333,633	347,190	4,438,426	5,117,217	5,572,185	5,914,667
333,634	348,622	4,553,127	5,132,660	5,646,591	5,945,936
333,635	352,685	4,584,569	5,193,141	5,656,997	5,952,933
333,636	383,689	4,794,368	5,245,694	5,712,638	5,990,786
333,795	383,690	4,887,064	5,285,186	5,783,989	6,093,979
340,000	390,830	4,897,630	5,315,285	5,798,711	
344,905	392,944	4,922,224	5,357,560	5,872,519	
345,317	4,327,444	4,987,402	5,532,670	5,900,806	

International Patents:

Australia: 694,925
Canada: 1,315,859 and 2,067,099
Taiwan: 91817

Other patents pending

Limited lifetime consumer warranty

Directed Electronics. ("Directed") promises to the original purchaser to repair or replace (at Directed's election) with a comparable reconditioned model any Directed unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was purchased from an authorized Directed dealer, the unit was professionally installed and serviced by an authorized Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. ALL PRODUCTS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF PURCHASE WILL BE DENIED. This warranty is non-transferable and is automatically void if: the original purchaser has not completed the warranty card and mailed it within ten (10) days from the date of purchase to the address listed on the card; the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. Directed, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS

WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGE TO VEHICLE, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE SUBJECT TO THE CONDITIONS AS DESCRIBED HEREIN. THIS WARRANTY IS VOID IF THE UNIT HAS NOT BEEN PURCHASED FROM DIRECTED, OR AN AUTHORIZED DIRECTED DEALER, OR IF THE UNIT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, ACTS OF GOD, NEGLECT, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECT IN MATERIALS OR CONSTRUCTION.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This warranty is only valid for sale of product(s) within the United States of America. Product(s) sold outside of the United States of America are sold "AS-IS" and shall have NO WARRANTY, express or implied. This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized Directed dealer for details of the plan or call Directed Customer Service at 1-800-876-0800.

Make sure you have all of the following information from your authorized Directed dealer:

A clear copy of the sales receipt, showing the following:
o   Date of purchase
o   Your full name and address
o   Authorized dealer's company name and address
o   Type of alarm installed
o   Year, make, model and color of the automobile
o   Automobile license number
o   Vehicle identification number
o   All security options installed on automobile
o   Installation receipts

920-0003 06-06

The company behind this system is Directed Electronics

Since its inception, Directed Electronics has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, DIRECTED is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call (800) 274-0200 for more information about our products and services.

ISO 9001

Directed Electronics is an ISO 9001 registered company.

Directed Electronics is committed to delivering world class quality products and services that excite and delight our customers.

driven to excel

Directed®
E L E C T R O N I C S

Quick Reference Install Guide
3000-series Remote Start with Keyless Entry

Wiring Connections

Main Harness (H1), 9-pin connector

H1/1	LIGHT GREEN/BLACK	(-) 200mA FACTORY ALARM DISARM
H1/2	GREEN/WHITE	(-) 200mA FACTORY ALARM REARM
H1/3	YELLOW	(+) IGNITION OUT (TO ALARM)
H1/4	WHITE/BLUE	(-) ACTIVATION INPUT
H1/5	ORANGE	(-) 500mA GROUND WHEN LOCKED/ANTI-GRIND OUTPUT
H1/6	BROWN	(-) 200mA HORN OUTPUT
H1/7	RED/WHITE	(-) 200mA TRUNK RELEASE OUTPUT
H1/8	BLACK	GROUND
H1/9	WHITE	(+/-) LIGHT FLASH OUTPUT

Door Lock, 3-pin connector

1	LIGHT BLUE	(-) UNLOCK
2	EMPTY	NOT USED
3	GREEN	(-) LOCK

Remote start (H2) 6-pin connector

H2/1	PINK	OUTPUT TO PRIMARY IGNITION CIRCUIT
H2/2	PURPLE	OUTPUT TO STARTER CIRCUIT
H2/3	ORANGE	OUTPUT TO ACCESSORY CIRCUIT
H2/4	RED	(+) (30A) HIGH CURRENT 12V INPUT
H2/5	PINK/WHITE	OUTPUT TO SECOND IGNITION/ACCESSORY CIRCUIT
H2/6	RED	(+) (30A) HIGH CURRENT 12V INPUT

Satellite harness - 4-pin connector

1	BLUE	(-) 200mA STATUS OUTPUT
2	ORANGE	(-) 200mA ACCESSORY OUTPUT
3	PURPLE	(-) 200mA STARTER OUTPUT
4	PINK	(-) 200mA IGNITION OUTPUT

Remote Start harness (H3), 5-pin connector

H3/1	BLACK/WHITE	(-) NEUTRAL SAFETY SWITCH INPUT
H3/2	VIOLET/WHITE	TACHOMETER INPUT WIRE
H3/3	BROWN	(+) BRAKE SHUTDOWN INPUT WIRE
H3/4	GRAY	(-) HOOD PIN SWITCH SHUTDOWN WIRE
H3/5	BLUE/WHITE	(-) 200 mA 2ND STATUS/REAR DEFOGGER

Installation Points

Tach Learning

To learn the tach signal:
1. Start the vehicle with the key.
2. Within 5 seconds, press and hold the Valet button.
3. After 3 seconds the LED will light constant when the tach signal is learned.
4. Release the Valet button.

Virtual Tach

Note: Virtual tach is not recommended for diesel trucks

To program Virtual Tach:
1. After the install is complete, remote start the car.
2. If the car does not start on the first attempt, let the remote start attempt again.
3. Once the car starts, let it run until the parking lights come on.
4. When the parking lights come on, shut off the remote start with the remote - that's it! Virtual Tach is programmed.

Virtual Tach handles disengaging the starter motor during remote starting – it does not address over-rev. If the customer wants to have the over-rev protection capability, the tach wire must be connected. This may involve more installation shop charges than initially quoted.

> **Important:** If the Virtual Tach mode over cranks or doesn't crank the vehicle long enough to start and run the car, use the Bitwriter to add or subtract the starter output time. You can adjust the output time in increments of 50msec of the learned time using the Bitwriter.

Reset and Deletion

If a feature/virtual tach needs to be reset or the remote controls need to be deleted, use the following procedure.

1. Turn the ignition to the ON position (The heavy gauge pink wire must be connected).
2. Within 10 seconds, press and release the Valet button: 2 times if you want to delete remotes, 3 times to reset features or 4 times to reset virtual tach. These features are described next.

> **Delete remotes:** This feature erases all remotes from the memory of the system. This is useful in cases when a customer's remote is lost or stolen.
> Note: This does not reset the programmed features of the system or reset the Virtual Tach setting.
>
> **Reset Features:** This resets all features of the system to the factory default settings.
> Note: This feature does not delete the remotes from the system or reset the Virtual Tach setting
>
> **Virtual Tach Reset:** Deletes all previously learned values for Virtual Tach, and on the next remote start sequence the unit begins virtual tach initialization.
>
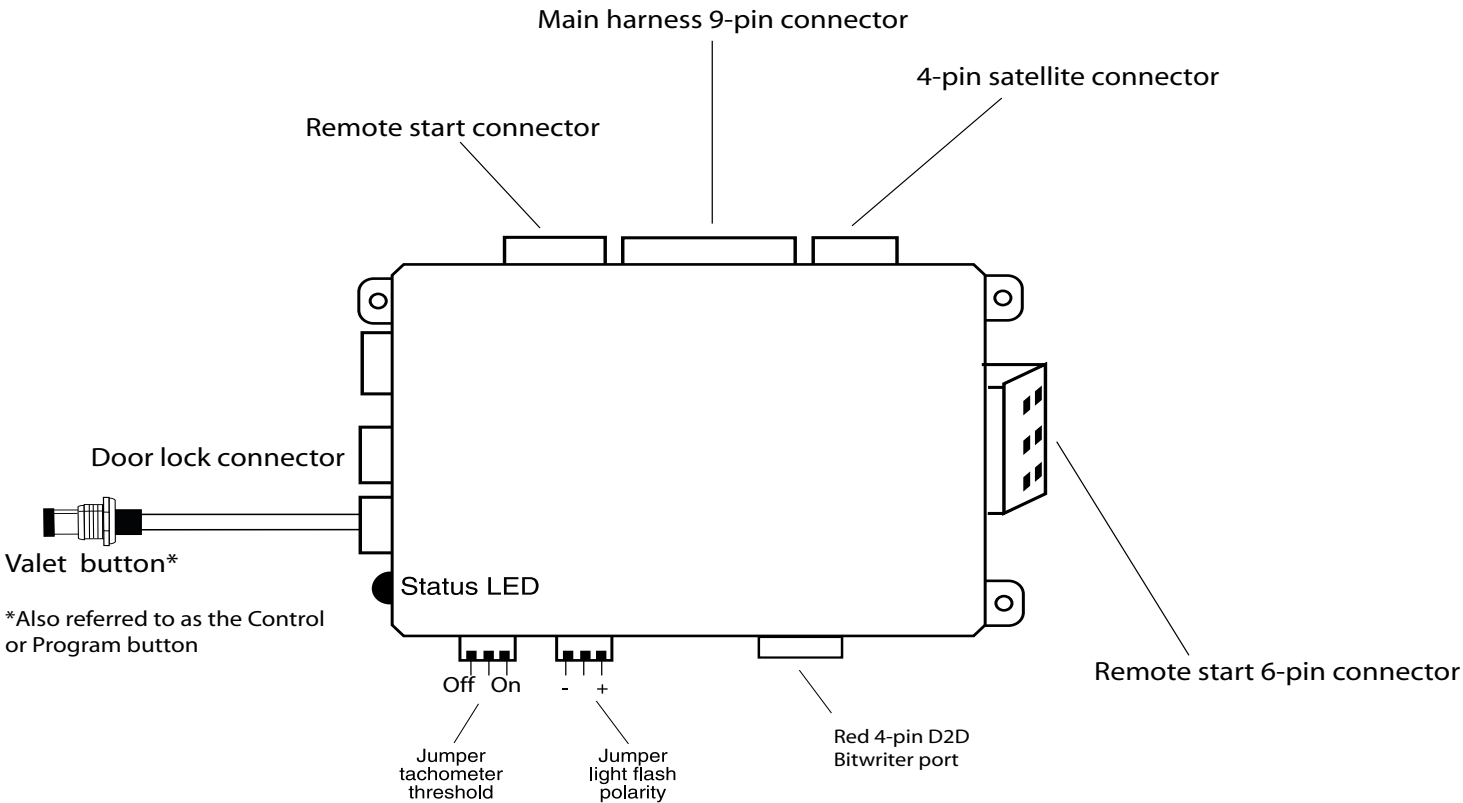> Note: The "Zap" feature on the Bitwriter does not reset the Virtual tach setting.

3. Once you have selected the function step, press the Valet button once more and hold it. The LED flashes and the horn honks to confirm the selected functional step. Do not release the Valet button
4. While holding the Valet button, Activate remote start input. When the white/blue H1/4 is pulsed, the horn sounds to confirm the reset. *
   * If using the optional RF kit p/n: 9474T (1-way remote and receiver), press the 🔒 button on the remote to reset the features.
5. Once the feature is reset, release the Valet button.

Remote Start Shutdown Diagnostics

To perform shutdown diagnostics:
1. With the ignition Off, **press** and **hold** the Valet button.
2. **Turn** the ignition On and then back Off while **holding** the Valet button.
3. **Release** the Valet button.
4. **Press** and **release** the Valet button. The LED flashes to report the last shutdown for one minute or until the ignition is turned on, as shown in the following table:

LED Flashes	Shutdown Mode
1 flash	Timed out
2 flashes	Over-rev shutdown
3 flashes	Low or no RPM, low battery (voltage and virtual tach modes)
4 flashes	Transmitter shutdown (or optional push button)
5 flashes	(-) Hood Shutdown (H3/4 GRAY)
6 flashes	(+) Shutdown (H3/3 BROWN)
7 flashes	(-) Neutral safety shutdown (H3/1 BLACK/WHITE)
8 flashes	Wait-to-start timed out

Main harness 9-pin connector

4-pin satellite connector

Remote start connector

Door lock connector

Valet button*

*Also referred to as the Control or Program button

Status LED

Off   On   -   +

Jumper tachometer threshold

Jumper light flash polarity

Red 4-pin D2D Bitwriter port

Remote start 6-pin connector

Programming System Features

The System Features Learn Routine dictates how the unit operates. It is possible to access and change most of the feature settings using the Valet button.

1. **Turn** the ignition on, then off.
2. **Select** a Menu. **Press** and **hold** the Valet button. The number of LED flashes and horn honks indicates the menu number. A single LED flash and honk indicates menu 1. Two LED flashes and 2 honks indicates menu 2.
3. When the desired menu LED flashes and honks are heard, **release** the Valet button.
4. **Select** a Feature. **Press** and **release** the Valet button the number of times corresponding to the feature you wish to change. Then **press** and **hold** one more time to select the feature. The LED flashes and the horn honks to indicate which feature is selected.
5. **Program** the Feature. While holding the Valet button, Pulse the white/blue H1/4 wire, the LED will turn on or off indicating the feature setting. If the feature has more than two selections, each time this input is pulsed the next available setting will be picked. For example if 60 minute runtime is chosen, (Menu 2 feature 2) the LED flashes 3 times.

If using optional 9474T RF kit

This is the alternative to step 5: **Program** the Feature. While holding the Valet button, you can program the feature using the remote control. For features with only two options; 🔒 = option 1 while 🔓 = option 2. For features with more than two options; 🔓 selects the options in ascending order. The LED flashes and the horn honks indicating which option is selected.

Once a feature is programmed:

- Other features can be programmed within the same menu
- Another menu can be selected
- The learn routine can be exited if programming is complete

To access another feature in the same menu:

1. **Press** and **release** the Valet button the number of times necessary to advance from the feature you just programmed to the next one you want to program.
2. Then **press** the Valet button once more and **hold** it.

To select another menu:

1. **Press** and **hold** the Valet button.
2. After 3 seconds, the unit advances to the next menu, the horn honks and LED flashes indicating which menu has been accessed.

The learn routine exits if any of the following occurs:

- The ignition is turned On
- There is no activity for 30 seconds
- The Valet button is pressed too many times

Bitwriter - Only Options

If programming with the Bitwriter®, the learn routine can be locked or unlocked. If the learn routine has previously been locked, it must be unlocked with Bitwriter® - this cannot be done manually with the Valet button.

The Bitwriter® gives you access to a wider range of system options. These features and the adjustments that may be programmed are described in the table below.

Menu Item	Feature	Default	Options
1	Engine Runtime	12 min.	1-60 min.
2	Diesel start type	Off	Timed
3	Diesel start delay time (seconds)	15 sec	1-90 sec.
4	Virtual Tach Fine Tune	Not initialized	0 to 1 second in 50 millisecond increments
5	Remote control programming	Unlocked	Locked
6	Feature Programming	Unlocked	Locked

Feature Menus

Default settings are in **bold** type.

Menu 1

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Horn function	**Off**	Siren 20 mS	Siren 30 mS	Siren 40 mS	Siren 50 mS
2	Ignition controlled lock	On	**Off**			
3	Ignition controlled unlock	On	**Off**			
4	Doorlock output duration	**0.8 sec.**	3.5 sec.	0.4 sec.		
5	Double pulse unlock	**Off**	On			
6	Double pulse lock	**Off**	On			
7	Factory Alarm Disarm function	**with unlock**	Before unlock	Remote start only		
8	Factory Alarm Disarm Pulses	**Single**	Double			
9	Comfort Closure	Comfort Closure 1	**Off**	Comfort Closure 2		
10	Panic	**On**	Off			

Menu 2

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Engine checking	**Virtual tach**	voltage	Off	tachometer	
2	Engine Runtime	**12 min**	24 min	60 min		
3	Park light output	Pulsed	**Constant**			
4	Cranking time	**0.6 sec.**	0.8 sec.	1.0 sec.	1.2 sec.	1.4, 1.6, 1.8, 2.0, 4.0 sec
5	Activation pulse count	**1 pulse**	2 pulses	3 pulses		
6	2nd Ignition behavior	**Ignition**	Accessory			
7	Accessory output	**Off during wait-to-start**	On during wait-to-start			
8	2nd Status behavior	**Normal**	Latch rear defogger	Pulse rear defogger		
9	Anti-grind	**On**	Off			
10	Diesel start delay	**Off**	Timed 15 sec	Timed 30 sec.	Timed 45 sec.	
11	Timer mode run time	**12 min**	3 min	6 min	9 min	

Optional Remote Programming (for use when adding 9474T Remote Kit)

1. Turn key to the ON position
2. Within 5 seconds, press and release Valet button one time.
3. Within 5 seconds, press and hold the Valet button. The LED will flash one time and the horn honks to confirm entry into remote programming.
4. Press the 🔒 button on the remote control.
5. The horn honks to confirm the remote has been programmed.
6. Release the Valet button, and turn the key to the Off position.
7. The horn sounds one long honk to confirm that remote programming has been exited.

The programming routine exits if any of the following occurs:
The ignition is turned off
There is no activity for 30 seconds
The Valet button is pressed too many times

Bitwriters with a date code of 6a or older require an IC upgrade (p/n 998M). Some bitwriters with a date code of 6B do not require the IC upgrade, refer to tech tip # 1112 for more information.

The Bitwriter® (p/n 998U) requires chip version **2.7** or newer to program this unit.

See full Installation Guide for more detailed information on this system. Such information and more can be found online at:
www.directechs.com

Directed
ELECTRONICS

Installation Procedure

This product is compatible with most Directed Electronics Security, Remote Start and hybrid systems that are ESP2 compatible (3 or 4-pin). Non-compatible systems include 3001L and older AM1/AM5 models.

Please read the following before proceeding

1. Customer Information required:
   - Record the customer information requested in step 4a of this procedure. The module ID # is provided on a sticker which can be affixed to the space provided in step 4a.

   This information is required for final verification/activation of the VSM200/250 or DSM200/250.

2. Installation Points:
   - Install and test the security/remote start system first using the associated guides and wiring diagram. If using an existing system, verify it is fully functional before installing the Directed SmartStart module.
   - For 3000-series or standalone SmartStart systems with no remote control, test the installed system via the SmartStart activation portal.
   - Mount the SmartStart module as high as possible in the vehicle (the engraved side faces up for GPS devices). Mount with minimal obstructions that can affect communications and within reach of the main Directed system using the provided cables (do not extend).

The module's signal strength (RSSI) can be viewed in the activation portal after a successful transmission test.

-50 to -90 dB	= good signal strength
-91 to -100 dB	= borderline/inconsistent signal strength
> -100 dB	= weak, insufficient signal strength

- DO NOT connect the SmartStart module until the final programming of the Remote Start main unit and verification of security/remote start system operations are completed.
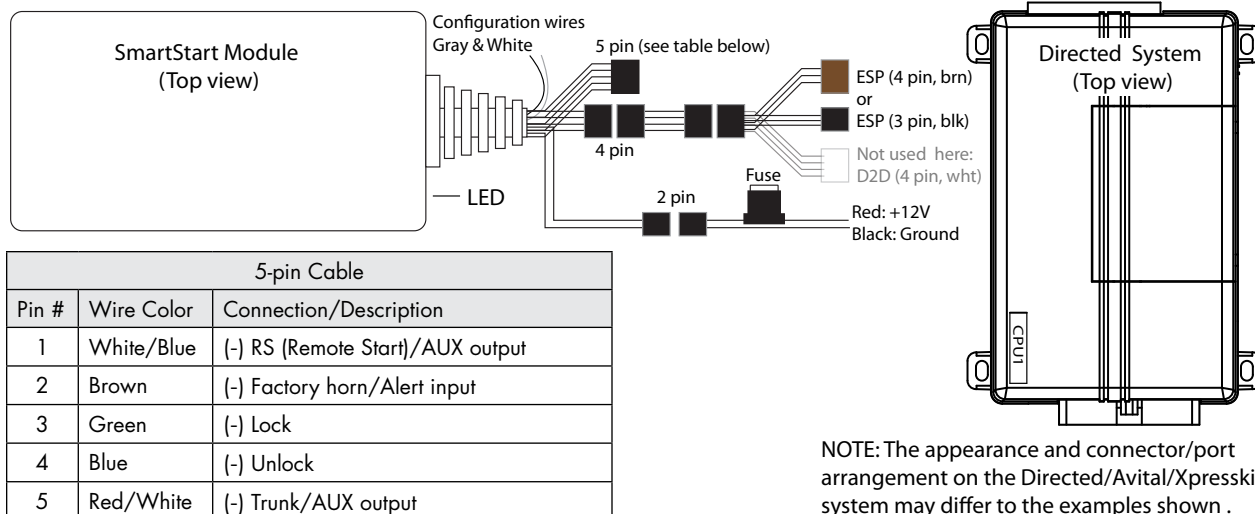
⚠ CAUTIONS

The white plug is **ONLY** for RSR (Remote Start Ready) and RXT applications using certain Xpresskit interfaces (go to www.xpresskit.com for details on supported devices & vehicles).

For systems with combined 4-pin ESP/D2D ports, you **CANNOT** use an interface module in D2D mode when using a SmartStart module. You must use W2W on the bypass module.

DO NOT connect the black 3-pin ESP connector to white Door Lock port on Directed systems.

There should **NEVER** be more than one data plug connected from the 3-way harness.

Wiring Schematic

Configuration wires Gray & White
SmartStart Module (Top view)
5 pin (see table below)
4 pin
ESP (4 pin, brn) or ESP (3 pin, blk)
Not used here: D2D (4 pin, wht)
LED
2 pin
Fuse
Red: +12V
Black: Ground
Directed System (Top view)
CPU1

NOTE: The appearance and connector/port arrangement on the Directed/Avital/Xpresskit system may differ to the examples shown .

5-pin Cable		
Pin #	Wire Color	Connection/Description
1	White/Blue	(-) RS (Remote Start)/AUX output
2	Brown	(-) Factory horn/Alert input
3	Green	(-) Lock
4	Blue	(-) Unlock
5	Red/White	(-) Trunk/AUX output

Note: The analog output wires are only active if the device has been configured for Analog Wire mode in the installation portal.

3. Install the VSM200/250 or DSM200/250 using the information in the wiring diagram and steps (Note CAUTIONS during installation).
   a. Configuration Wires: Connect the loose gray or white configuration wire(s) to match the desired application (see table below).

MODE	GRAY WIRE	WHITE WIRE
ESP2	Open	Open
D2D, RSR/RXT	GND	Open
Autostart/AstroStart	Open	GND

   b. Connect the serial data cable and adapter to the correct port of the main module. For D2D RSR/RXT applications, connect the serial data cable and adapter to Xpresskit module.
   c. Complete the main power connections.
   d. When power is connected, the module begins an initialization procedure that may take several minutes. During this procedure, progress is reported via the flashing Amber/Green LEDs next to the module cable. When both LEDs turn on solid, the initialization procedure is completed (See *Status LEDs* for a description of the various LED states).

4. Verify and Activate the SmartStart module:
   The following steps need to be performed for the Verification/Activation of the Directed SmartStart module.

   a. Collect Customer Information:

   Customer's Full Name:

   Customer's E-mail Address:

   Customer's mobile phone # and phone carrier

   Record/place Module ID # here:

   New Account: ☐   Existing Account: ☐
   If this is an existing account, are you:

   adding a new system: ☐

   or replacing an existing one: ☐

   b. Log on to: www.directechs.com, and click on the SmartStart link.
   c. Follow the on-screen directions to activate and test a SmartStart device. If this is the customer's first SmartStart system, you will be prompted to enter their information as collected in step 4a.
   d. Set configuration for commands to match the installed application.
   e. Test the SmartStart system from the website using the supplied function links.
   f. The customer is sent log-in information via e-mail. After logging into the site at www.mysmartstart.com, they must select and pay for the service plan in order to start using the system.

Status LEDs
   Amber LED states:
   - Off: No cellular communication. Check connections such as module harness.
   - Flashing slowly: The module is seeking cellular system communication.
     If no cell coverage is available the Amber LED continues to flash slowly, move the vehicle to a location with better reception.
   - Flashing quickly: The module is negotiating with a cellular system.
   - On solid: Communication successfully established.

   Green LED states:
   - Off: Communication not established with the remote start main unit or no serial device is connected.
     Check connection at the Bitwriter port, once connected properly the LED turns on after resetting the power to the SmartStart module.
   - On solid: Communication successfully established with the remote start main unit.

Please return this guide and point the customer to steps 4a and 4f after successfully completing the installation as it contains details required for account setup.

Notes: SmartStart response time can vary depending on cellular coverage and network congestion. Operating temperature range: -30°C to + 70°C.

Additional information can be found at: www.directechs.com
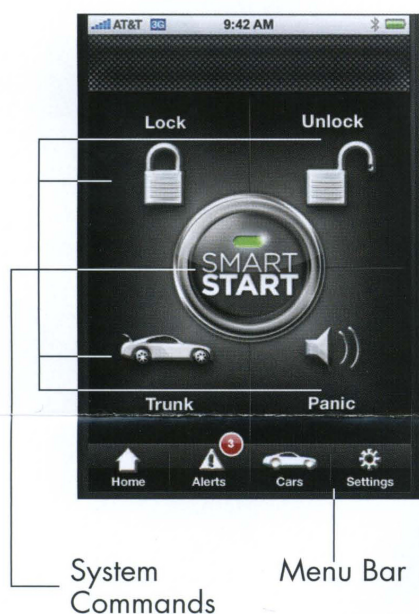*Directed* ELECTRONICS

Congratulations on the purchase of your state-of-the-art Directed SmartStart system. Reading this user's guide prior to using your system will get you off to a quick and smooth start.

Start Here

Before you can start using your system, the following steps must be performed:

1. Download the free SmartStart application to your smartphone from the iTunes App Store, BlackBerry App World or Android Market site depending on which brand you own. Links to download BlackBerry and Android apps are also available at www.directed.com/SmartStart

2. Have the SmartStart system installed by your authorized Directed dealer. Once installed and activated by the installer, you will receive an e-mail prompting you to activate your account. Your installer can also provide you with information about your system.

3. After you activate your account, enter your username and password on the Settings tab of the handset app to activate your SmartStart app.

4. Once you have completed the log-in process on your smartphone, you can begin using your app to control your vehicle(s). From the Car screen, select the vehicle you wish to send commands to.
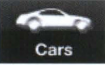
Commands at a Glance

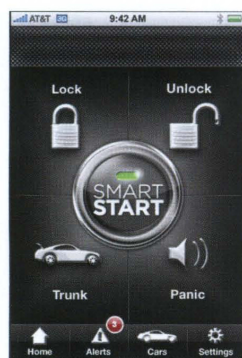| System Commands		Description
Lock	Lock	Select this icon to lock the vehicle. When a confirmation message is received, select it to clear.
Unlock	Unlock	Select this icon to unlock the vehicle. When a confirmation message is received, select it to clear.
Smart Start	Smart Start	Select this icon to remote start* your vehicle. When a confirmation message is received, select it to clear. The vehicle remote starts and stays running for the programmed run time*. Select this icon again to turn off the engine during the run time.
Trunk	Trunk	Select this icon to open trunk. A dialog box will open, asking you to confirm you want to open the trunk. Select "Yes" to confirm, or "No" to cancel the request. If you selected "Yes", select again to clear the confirmation message when it pops up.
Panic	Panic	Select this icon to activate panic mode for 30 seconds. Select again during this time to turn off. This feature is used to attract attention if in a threatened position.

* See your Remote Start system user's guide or installer for important information about starting a manual transmission vehicle and how long the engine will run when remote started.

Your vehicle responds exactly the same, with audible and visual confirmations, for both Smartstart and remote control commands.
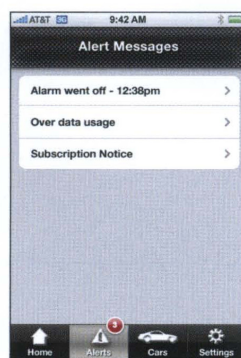
Menu Bar and Screens

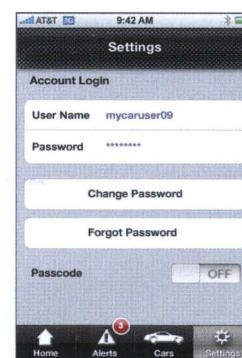| Menu Bar		Description
	Home	This screen is the default screen for direct access to all your remote commands. Select any command on the Home screen to perform it.
	Alerts	This screen provides notifications from the system. These notifications are indicated by a red circle above the Alerts icon which also indicates the number of uncleared notifications received. These notifications can be in the form of alarms, communication issues or updates to your service plan. The available Alerts may vary depending on the type of system installed in your vehicle. Note: Alerts may not be functional, depending on your app version or installed system.
	Cars	This screen allows you to control multiple vehicles if you have a security/remote start system installed in more than one vehicle.
	Settings	From this screen you can control your SmartStart login.

Screens

Home Screen

Alerts Screen

Cars Screen

Settings Screen

Please visit www.directed.com/SmartStart for the latest updates and information about your SmartStart system.

Note:	The amount of time it takes for your vehicle to respond to a command can be affected by cellular coverage or network congestion.

Note:	Your SmartStart module automatically checks for updates once every 24 hours. During updates, system operation is disrupted for approximately one minute.

Directed®
E L E C T R O N I C S

⚠	# IMPORTANT! Read First
	This unit must be tested prior to activating the system online.

Once the installation is complete; test that the remote start and keyless operations are functional prior to activating the system online.

The remote start can be activated/deactivated by manually providing a ground pulse to the White/Blue H1/4 wire.

When the White/Blue H1/4 wire receives a ground pulse; the remote start activates and the engine runs, if the vehicle does not remote start, troubleshoot the issue first and repeat this procedure again.

If the remote start successfully activates; shut down the remote start by pulsing the White/Blue H1/4 wire once more. The remote start deactivates.

To test the lock functionality: manually provide a ground pulse to the Green (-) lock wire, the vehicle doors should lock.

To test the unlock functionality: manually provide a ground pulse to the Blue (-) unlock wire, the vehicle doors should unlock.

If the vehicles doors do not lock or unlock, troubleshoot the issue first and repeat this procedure again.

ADN-QRNDSS4003 2010-07

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LADI0010

⚠ **WARNING** ⚠

VEHICLE EQUIPPED WITH A DEI® REMOTE START SYSTEM

If vehicle battery is disconnected, the system may attempt to start when the battery is reconnected or transmitter is used. Press brake to disengage. Check with vehicle owner to determine if hood pin switch or override switch was installed to disengage the system for service.

IMPORTANT SAFETY NOTICE

QUALITY BY DESIGN

Thank you for selecting an innovative product from Directed Electronics, Inc. (DEI®). Since its inception, DEI has brought the proven advantages of custom micro-controllers and innovative technologies to the automotive industry. DEI is committed to delivering the best products we know how to provide and constantly working to improve our products, quality, delivery and customer friendly features.

As a recipient of numerous patents, DEI has established new standards in electronic design, automated manufacturing and dealer support. DEI's electronic products are sold and serviced worldwide.

This product is covered by one or more of the following U.S. patents:

303,223	333,633	333,634	333,635	333,636	333,795
340,000	344,905	345,317	345,711	347,190	348,622
352,685	383,689	383,690	390,830	392,944	4,327,444
4,383,242	4,438,426	4,553,127	4,584,569	4,794,368	4,887,064
4,897,630	4,922,224	4,987,402	5,103,221	5,117,217	5,132,660
5,193,141	5,245,694	5,285,186	5,315,285	5,357,560	5,532,670
5,534,845	5,572,185	5,646,591	5,656,997	5,712,638	5,783,989
5,798,711	5,872,519	5,900,806	5,907,195	5,914,667	5,945,936
5,952,933	5,990,786	6,093,979			

International Patents:

Australia: 694,925

Canada: 1,315,859 and 2,067,099

Taiwan: 91817

Other patents pending

MKG-1   7/00
LADDEIN7

Directed ® PRODUCT REGISTRATION

ELECTRONICS, INC.

Security

Protect Your Investment

Register your product for:

☑ **Recall Notifications**

We contact our customers in case of recall.

IMPORTANT

☑ **Owner Verification**

Registration can serve as verification of your ownership in the event of product theft or loss.

☑ **Efficient Service**

Completing this card will help you obtain more efficient warranty service in case there is a problem with your product.

Don't forget

We know you are busy, but registering is important, quick and easy!

Or register online at www.prodregister.com/directed

Directed®
ELECTRONICS, INC.

IMPORTANT!   IMPORTANT!
Please complete and return within the next 10 days
or register online at www.prodregister.com/directed

▲

1. 1. ☐ Mr.   2. ☐ Mrs.   3. ☐ Ms.   4. ☐ Miss   **X F J 0 1**

First name   Initial   Last name

Street   Apt.

City   State/Province   Zip/Postal code

E-mail address

2. Your date of birth: _____ / _____
   Month   Year

3. Marital status: 1. ☐ Married   2. ☐ Single

4. Date of purchase: _____ / _____ / _____
   Month   Day   Year

5. Model number:

6. Name of store where purchased:

7. Price paid *(excluding sales tax)*: **$** _____ **.00**

8. Which Directed Electronics brand did you purchase?
- 1. ☐ Autostart
- 2. ☐ Avital
- 3. ☐ Clifford
- 4. ☐ Python
- 5. ☐ Viper

9. What type of product did you purchase?
- 1. ☐ Security system
- 2. ☐ Security system with remote start
- 3. ☐ Remote start system
- 4. ☐ Keyless entry system

10. In what vehicle will this product be used?
Vehicle type:
- 1. ☐ Car
- 2. ☐ Truck
- 3. ☐ SUV
- 4. ☐ Van
- 5. ☐ Minivan
- 6. ☐ Motorcycle
- 7. ☐ Boat
- 8. ☐ Motor home
- 9. ☐ Other

Make of vehicle:

Model name:

VIN #:

Year:
- A. ☐ Bought new
- B. ☐ Bought used
- C. ☐ Leased
- D. ☐ Leased used

11. How did you first become aware of this product? *(check one)*
- 01. ☐ Local newspaper
- 02. ☐ Yellow pages
- 03. ☐ Magazine advertisement
- 04. ☐ TV commercial
- 05. ☐ Magazine article/review
- 06. ☐ Friend/Relative's recommendation
- 07. ☐ Radio commercial
- 08. ☐ Salesperson's recommendation
- 09. ☐ Manufacturer's website
- 10. ☐ Retailer's website
- 11. ☐ Internet forum
- 12. ☐ Other

12. What factors most influenced the purchase? *(check up to three)*
- 01. ☐ Directed Electronics reputation
- 02. ☐ Brand reputation
- 03. ☐ Experience with Directed product
- 04. ☐ Experience with dealer
- 05. ☐ Value/Price
- 06. ☐ Warranty
- 07. ☐ Special features
- 08. ☐ Quality/Durability
- 09. ☐ Sound board/In-vehicle demo
- 10. ☐ Rebate/Promotion
- 11. ☐ Style/Design/Color
- 12. ☐ Dealer proximity
- 13. ☐ Friend/Relative's recommendation
- 14. ☐ Salesperson's recommendation
- 15. ☐ Ease of installation
- 16. ☐ Compatibility with vehicle
- 17. ☐ Other

13. What benefits most influenced your decision to purchase this product? *(check up to three)*
- 01. ☐ Improved security
- 02. ☐ Improved convenience
- 03. ☐ Improved performance
- 04. ☐ Compatibility with vehicle
- 05. ☐ Ease of installation
- 06 ☐ Style/Design/Color
- 07. ☐ Special features
- 08. ☐ Quality/Durability
- 09. ☐ Increase vehicle value
- 10. ☐ Functionality
- 11. ☐ Warranty
- 12. ☐ Price/Value
- 13. ☐ Rebate/Promotion
- 14. ☐ Immediate availability
- 15. ☐ Friend/Relative's recommendation
- 16. ☐ Salesperson's recommendation
- 17. ☐ Dealer proximity

14. What other brands did you seriously consider before making this purchase?
- 1. ☐ No other brands considered
- 2. ☐ Other Directed Electronics brands
- 3. ☐ Code Alarm
- 4. ☐ Audiovox
- 5. ☐ Auto Page
- 6. ☐ Compustar
- 7. ☐ Prestige
- 8. ☐ Pursuit
- 9. ☐ Crime Stopper
- 10. ☐ Bulldog

15. *Not including yourself,* **what is the GENDER and AGE (in years) of children and other adults living in your household?**
- 1. ☐ No one else in household
- 2. ☐ Child under 1 year

Male	Female	Age		Male	Female	Age	
1. ☐	2. ☐		yrs.	1. ☐	2. ☐		yrs.
1. ☐	2. ☐		yrs.	1. ☐	2. ☐		yrs.

16. Occupation/Employment status: *(check all that apply)*

	You		Spouse
Professional/Technical	☐	01.	☐
Upper management/Executive	☐	02.	☐
Middle management	☐	03.	☐
Sales/Marketing	☐	04.	☐
Clerical/Service worker	☐	05.	☐
Tradesman/Machine operator/Laborer	☐	06.	☐
Teacher/Educator	☐	07.	☐
Healthcare - Physician/Nurse/Other	☐	08.	☐
Homemaker	☐	09.	☐
Military	☐	10.	☐
Retired	☐	11.	☐
Self employed/Business owner	☐	12.	☐
Work from home office	☐	13.	☐

17. Which group describes your annual family income?
- 01. ☐ Under $15,000
- 02. ☐ $15,000-$19,999
- 03. ☐ $20,000-$29,999
- 04. ☐ $30,000-$39,999
- 05. ☐ $40,000-$49,999
- 06. ☐ $50,000-$59,999
- 07. ☐ $60,000-$74,999
- 08. ☐ $75,000-$99,999
- 09. ☐ $100,000-$124,999
- 10. ☐ $125,000-$149,999
- 11. ☐ $150,000-$174,999
- 12. ☐ $175,000-$199,999
- 13. ☐ $200,000-$249,999
- 14. ☐ $250,000 & over

18. Level of education: *(check highest level completed)*
- 1. ☐ Completed high school
- 2. ☐ Completed college
- 3. ☐ Completed graduate school

19. For your primary residence, do you:
- 1. ☐ Own?   2. ☐ Rent?

20. What type of internet access do you use at home?
- 1. ☐ Dial-up
- 2. ☐ Cable
- 3. ☐ DSL
- 4. ☐ Other broadband (e.g. fiber optic, wireless Wi-Max)
- 5. ☐ Satellite

21. When new products that have the latest technologies appear on the market, do you or someone in your household:
- 1. ☐ Tend to buy such items as soon as they are available?
- 2. ☐ Tend to wait until the item has been around for a while before buying?

▲

22. **To help us understand our customers' lifestyles, please indicate the interests and activities in which *you* or *your spouse* enjoy participating on a *regular* basis.**

Home Life
- 01. ☐ Grandchildren
- 02. ☐ Home improvement/Do-it-yourself
- 03. ☐ Gardening
- 04. ☐ Own a dog
- 05. ☐ Own a cat

Leisure
- 06. ☐ Cultural/Art events
- 07. ☐ Avid book reading
- 08. ☐ Bible/Devotional reading
- 09. ☐ Gourmet cooking/Fine foods
- 10. ☐ Wines
- 11. ☐ Art/Antique collecting
- 12. ☐ Stamp/Coin collecting
- 13. ☐ Crafts
- 14. ☐ Sewing/Needlework/Knitting

Travel
- 15. ☐ Airline club/Frequent flyer
- 16. ☐ Travel in USA
- 17. ☐ Foreign travel
- 18. ☐ Cruise ship vacations
- 19. ☐ RV vacations
- 20. ☐ Casino gambling

Investing and Money
- 21. ☐ Shopping by catalog/mail order
- 22. ☐ Shopping by internet
- 23. ☐ Use credit cards regularly
- 24. ☐ Donate to charitable causes
- 25. ☐ Investments/Money making opportunities
- 26. ☐ Contests/Sweepstakes

Great Outdoors
- 27. ☐ Hunting/Shooting
- 28. ☐ Fishing
- 29. ☐ Camping/Hiking
- 30. ☐ Wildlife/Environmental issues
- 31. ☐ Boating/Sailing

Sports, Fitness & Health
- 32. ☐ Physical fitness/Exercise
- 33. ☐ Walking for health
- 34. ☐ Health/Natural foods
- 35. ☐ Dieting/Weight control
- 36. ☐ Self-improvement
- 37. ☐ Golf
- 38. ☐ Biking
- 39. ☐ Snowboarding/Snow skiing
- 40. ☐ NASCAR

Thanks for taking the time to fill out this questionnaire. Your answers will be used for market research studies and reports. They will also allow you to receive important mailings and special offers from a number of fine companies whose products and services relate directly to the specific interests, hobbies, and other information indicated above. Through this selective program, you will be able to obtain more information about activities in which you are involved and less about those in which you are not. Please check here if, for some reason, you would prefer *not* to participate in this opportunity. ☐

Failure to return this card will not diminish your warranty rights.

540-0070 (A)

Please seal with tape. Do not staple.

LRDEI006

**Please send products and
other correspondence to:**

**Directed Electronics Inc.
1 Viper Way
Vista, CA 92081**

X F J 0 1

Directed®
ELECTRONICS, INC.
**PO BOX 174391
DENVER CO 80217-4391**

If you would like to add a conventional remote to complement your SmartStart system, please ask your sales professional and they'll be happy to arrange for installation of a Remote Kit and program the remote for you.

model 9474T

$99.99